FTSE Bitcoin and Gold Risk Weighted Index

In Association with Digital Asset Research v1.0



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Introduction

1. Introduction

- 1.1 This document sets out the Ground Rules for the FTSE Bitcoin and Gold Risk Weighted Index. The companion documents <u>Guide to the Vetting of Digital Assets and Digital Asset Exchanges</u> and the <u>Guide to the Calculation of the FTSE DAR Digital Asset Prices</u> should be read in conjunction with this document. Copies of both of these documents are available at <u>www.lseg.com/en/ftse-russell/</u>.
- 1.1.1 The FTSE Bitcoin and Gold Risk Weighted Index reflects the performance of a combination of the FTSE Bitcoin Index and Gold spot price returns.
- 1.1.2 The weighting of each component is based on the inverse historical volatility.
- 1.2 The FTSE Bitcoin and Gold Index does not take account of ESG factors in its index design.
- 1.3 The base currency of the FTSE Bitcoin and Gold Index is US Dollars (USD).
- 1.4 Index is calculated at Price Return levels only.

1.5 FTSE Russell

FTSE Russell is a trading name of FTSE International Limited, Frank Russell Company, FTSE Global Debt Capital Markets Limited (and its subsidiaries FTSE Global Debt Capital Markets Inc. and FTSE Fixed Income Europe Limited), FTSE Fixed Income LLC, FTSE (Beijing) Consulting Limited, Refinitiv Benchmark Services (UK) Limited, Refinitiv Limited and Beyond Ratings.

1.6 FTSE Russell does not make any representation or warranty, express or implied, as to the accuracy, completeness or correctness of the FTSE Bitcoin and Gold Risk Weighted Index.

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- 1.7 No liability whether as a result of negligence or otherwise is accepted by FTSE Russell (or any person concerned with the preparation or publication of these Ground Rules) for any losses, damages, claims and expenses suffered by any person as a result of:
 - any reliance on these Ground Rules, and/or
 - any inaccuracies in these Ground Rules, and/or
 - any non-application or misapplication of the policies or procedures described in these Ground Rules, and/or
 - any inaccuracies in the compilation of the index series or any constituent data.

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Management responsibilities

2. Management responsibilities

2.1 FTSE International Limited (FTSE)¹

- 2.1.1 FTSE is the Benchmark Administrator of the Index Series.
- 2.1.2 FTSE is responsible for the daily calculation, production and operation of the index series and will:
 - maintain records of the index weightings of all constituents;
 - make changes to the constituents and their weightings in accordance with the Ground Rules;
 - carry out periodic index reviews of the index series and apply the changes resulting from the reviews as required by the Ground Rules;
 - publish changes to the constituent weightings resulting from their ongoing maintenance and the periodic reviews;
 - disseminate the indices.

2.2 Digital Asset Research

- 2.2.1 Digital Asset Research (DAR) assesses the quality of pricing data, qualifies pricing sources, calculates the FTSE DAR Digital Asset Prices and supplies FTSE Russell with price feeds and advises on the eligibility of assets in the FTSE Global Digital Asset Index Series.
- 2.2.2 DAR is an independent, privately-owned research firm and data provider which partners with FTSE Russell in research into and providing data on digital assets.
- 2.2.3 DAR is responsible for the ongoing vetting of digital assets and of the Broker Dealer/Exchanges of digital assets. DAR collects and validates the data it obtains as Principal to identify ensuring both digital assets and Broker Dealer/Exchanges of digital assets pass a strict set of rules.

2.3 Amendments to these Ground Rules

2.3.1 These Ground Rules shall be subject to regular review (at least once a year) by FTSE Russell to ensure that they continue to best reflect the aims of the index series. The feedback from these consultations will be considered by the FTSE Russell Index Governance Board before approval is granted.

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¹ The term administrator is used in this document in the same sense as it is defined in Regulation (EU) 2016/1011 of the European Parliament and of the Council of 8 June 2016 on indices used as benchmarks in financial instruments and financial contracts or to measure the performance of investment funds (the European Benchmark Regulation) and The Benchmarks (Amendment and Transitional Provision) (EU Exit) Regulations 2019 (the UK Benchmark Regulation).

FTSE Russell Index policies

3. FTSE Russell Index policies

These Ground Rules should be read in conjunction with the following policy documents which can be accessed through the links below:

3.1 Queries and Complaints

FTSE Russell's complaints procedure can be accessed through the following link:

Benchmark_Determination_Complaints_Handling_Policy.pdf

3.2 Policy for Benchmark Methodology Changes

Details of FTSE Russell's policy for making benchmark methodology changes can be accessed through the following link:

Policy_for_Benchmark_Methodology_Changes.pdf

3.3 Real Time Status Definitions

3.3.1 For indices that are calculated in real time, please refer to the following guide for details of real time status definitions:

Real Time Status Definitions.pdf

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Eligibility criteria

4. Eligibility criteria

- 4.1 Following assets are eligible:
- 4.1.1 FTSE Bitcoin Index.
- 4.1.2 Gold spot.

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Periodic review of constituents

5. Periodic review of constituents

5.1 Eligible assets

- 5.1.1 The FTSE Bitcoin Index. The notional close at 22:00 hours UTC values is used.
- 5.1.2 Gold. LBMA Gold Price PM fixed at 15:00 hours London time is used. The LBMA gold price is administered independently by ICE Benchmark Administration. Please refer to https://www.lbma.org.uk/ for further details.

5.2 Index reviews

5.2.1 The FTSE Bitcoin and Gold Risk Weighted Index is reweighted on a quarterly basis on the last business day of March, June, September, and December. The reweighting is effective on the first business day of April, July, October, and January respectively.

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Changes to the constituents

- 6. Changes to the constituents
- 6.1 The constituents of the FTSE Bitcoin and Gold Risk Weighted Index are fixed to have only:
- 6.1.1 FTSE Biton Index, and
- 6.1.2 Gold spot.

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Index calculation method

Index calculation method

7.1 Prices

- 7.1.1 The FTSE Bitcoin Index is part of the FTSE Digital Assets Index Series. The notional close at 22:00 hours UTC values is used.
- 7.1.2 Gold LBMA Gold Price PM fixed at 15:00 hours London time is used. The LBMA Gold Price is administered independently by ICE Benchmark Administration. Please refer to https://www.lbma.org.uk/ for further details

7.2 Calculation frequency

- 7.2.1 The FTSE Bitcoin and Gold Risk Weighted Index is calculated Monday to Friday except on Christmas Day (observed) and New Year's Day (observed).
- 7.2.2 The FTSE Bitcoin and Gold Risk Weighted Index is calculated on an end of day basis.
- 7.2.3 If the value of any components is not available, the value from the previous day will be used.

7.3 Index calculation

7.3.1 The FTSE Bitcoin and Gold Index calculation formula is described below:

$$I_{\mathcal{C}}(t) = I_{\mathcal{C}}(t-1) \times \left(1 + \sum_{i=1}^{2} \left(wt_{i}(t) \times r_{i}(t)\right)\right)$$

$$wt_i(t) = \begin{cases} \left(\frac{\frac{1}{vol_i(t-1)}}{\left(\sum_{i=1}^2 \frac{1}{vol_i(t-1)}\right)}\right), & t = rebalance \ effective \ day \\ wt_i(t-1) \times \frac{\left(1+r_i(t-1)\right)}{\left(1+R_C(t-1)\right)}, & t \neq rebalance \ effective \ day \end{cases}$$

where:

 $I_c(t)$ = FTSE Bitcoin and Gold Risk Weighted Index on day t

 $wt_i(t)$ = Weight of constituent i on day t

 $r_i(t)$ = Daily return of constituent i on day t

 $vol_i(t)$ = 90 day realised standard deviation of constituent i on day t

 $R_c(t-1)$ = Daily return of FTSE Bitcoin and Gold Risk Weighted Index on day t-1

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Appendix A

Further information

A glossary of terms used in FTSE Russell's Ground Rule documents can be found through the following link:

Glossary - Digital Assets.pdf

Further information on the FTSE Bitcoin and Gold Risk Weighted Index is available from FTSE Russell.

For contact details please visit the FTSE Russell website or contact FTSE Russell client services at info@ftserussell.com.

Website: www.lseg.com/en/ftse-russell/

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